

An object of the present invention is to improve the reliability and the yield of production of semiconductor integrated circuit devices by filling copper in the inside of features having a high aspect ratio for forming multi-layer interconnections composed of a plurality of interconnection layers which are connected to one another and to a copper electroplating bath suitable therefor. In the present invention, when the features are filled with copper, the use of a copper electroplating bath with an addition of cyanine dyes, for example, indolium compounds allows the copper plating to proceed preferentially from the bottoms of the features.